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The Practical Character of the Naval War College

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THE PRACTICAL CHARACTER OF THE NAVAL WAR COLLEGE.

Just twenty years ago Admiral Mahan delivered an address, at the opening of the Naval War College in 1892, that bore the same title as this lecture. It was published in the Naval Institute in 1893. It is of course sound in every particular, and will repay a careful reading. It shows with entire conclusiveness that the study of the history of naval warfare is in no sense a theoretical proceeding, but essentially a practical one that is entirely indispensable as a preparation for actual conflict; but, as the war games had not been introduced at that time, the address does not indicate the additional necessity for constant mental practice in the application of this knowledge of war by means of these games.

It will be one of the principal objects of this lecture to supply this omission, and to explain as clearly as possible not only the practical character of such studies but the imperative necessity of these mental training exercises.

One of the first things a student learns at the Naval War College is to appreciate the value of a systematic method of arriving at a conclusion.

Whenever we are given a task to perform, the college teaches us first to state our mission, then to make an estimate of the situation, and finally to form our decision, or conclusion. I will try to adhere to this principle.

My mission upon this occasion, as I understand it, is to show that a knowledge of the art of war, and that training in the application of this knowledge are vitally necessary to success in naval warfare; and I hope to be able to indicate clearly how this knowledge and training may best be acquired by our officers.

The primary object of the Naval War College is to study the principles of warfare, as enunciated by the great masters of the art, to develop the practical application of these principles to war on the sea under modern conditions, and then to train our minds to a high degree of precision and rapidity in the correct application of these principles.

In order to form a correct conclusion as to what should be done, it will be necessary to make a candid examination of where we stand in reference to this important feature of preparation for war ; that is, we must make an estimate of our present situation in this respect.

This estimate should show, as clearly as possible, the elements of preparation that are essential to success, wherein and to what degree we have failed to realize them, and what direction reform should take.

We all recognize the necessity of building a navy the individual units of which are as numerous, as well constructed, as fast, as well manned, as well trained, as well equipped, and as well supplied as the navies of our possible enemies ; but I do not think that we all quite fully realize that such a navy cannot reasonably be expected to succeed in war unless the man who directs the whole and the men who direct the various elements—the squadrons, divisions, flotillas, and individual ships—not only know the principles of the art of war, but have had their minds trained in the application of these principles to such a degree that they will all be actuated by a common doctrine of war, which doctrine will enable them to coordinate their several actions in furthering the general plans of the commander-in-chief.

I say that this necessity for mental training is not fully realized by all of us. Of course, all officers understand in a general way that we must know how to handle a great fleet if we expect to succeed in strategy and tactics ; but I am sure I am not wrong in stating that too many officers tacitly assume that this knowledge will come to us as a result of a faithful discharge of our duties as we advance in years and grade toward positions of command and responsibility.

So far is this from the truth that no apology seems necessary for any length of illustration that may be required to show its fallacy, and its extreme danger.

I am going to attempt to explain this by using as an illustration the method of training employed in a game with which you are all very familiar, namely, football. This game does not cover a sufficiently extensive field to serve as a complete illustration of the strategical and tactical difficulties involved in handling a great fleet ; but it will, I believe, serve well enough to make clear the distinction between the two essential elements of success ; the

material and the mental elements—that is, first, the strength, equipment and training of the individual units and, second, the training of the guiding and coordinating minds.

Let us, therefore, examine the principles and methods of training which have enabled us to attain such a high degree of excellence in playing this strenuous game. If you want to teach your team to play successful football, you set it to work actually playing many games against other strong teams. The players themselves develop by experience new plays and devise methods of counteracting the plays of the opposing team. This they do under the guidance of coaches, who are men who have made a special study of the subject, who are the experts in the art of football war.

In playing these games against other college teams, your men are getting ready for a football war that will be declared against West Point in November. These practice games are similar in all essential elements to the "war game" you will play against your friendly rivals of the other branch of our military service.

Your method of training is, therefore, perfect in all respects, simply because you can repeatedly make exactly the same kind of "war" in your practice games that you will make in the great game at the end of the season.

If we could use our great fleet in the same manner and to the same extent, that is, in numerous competitive fights with other fleets, our preparation for a naval war would thus be rendered equally thorough; but of course this could not be done without the loss of many ships and many men. A few such games and we should have no navy left. We must, therefore, seek some other method of instructing and training our officers in the art of war.

In order to illustrate the nature of the methods that we are forced to use in training our officers to handle a fleet in war, let us suppose that our football games were as deadly as naval battles. Suppose that a game with West Point, or with any of the other colleges, always resulted in the death of at least five or six players of each side. If that were true, it is evident that you would have to give up your practice games with the other colleges and devise some other method of training for the great game with West Point.

Assuming that the public interests required the West Point game to be played, what would you do about it? Manifestly, you would get up a kind of practice game that was as nearly like the real thing as you could make it without the risk of actually killing anybody.

In playing such practice games with eleven men on a side, you would be using your brains to get up new plays and your bodies to carry them out, as far as you could without causing any deaths. In every such game you would be training your minds in anticipating the probable strategy of the enemy and in making rapid decisions to resist his attacks as soon as they developed.

Our method of training officers to handle a great naval force with the highest possible efficiency in battle is necessarily very similar to that which would be required for training a team to play football if the latter game were as deadly as a naval action. The captain of such a team corresponds to the commander-in-chief, and the players correspond to the individual ships and their commanders.

The football player consists of a body of flesh and a brain. The fleet unit consists of a body of steel, and a brain—the captain. In each case, the brain directs and the body executes. Both are essential to success.

The real business of the navy is preparation for war. All of its training must have that end in view. If war should unfortunately be forced upon us, it must find the fleet prepared in every particular. This preparation comprises many different elements. We build our ships as strong, as swift and of as great gun power as possible, and we train their crews to the maximum practicable degree of efficiency.

We train ourselves to maneuver the ships accurately and to shoot the guns with the greatest possible precision. Similarly the men of the team are trained until each is as capable as we can make him.

Now, suppose we assume a group of perfectly efficient battleships and a squad of big, strong, athletic midshipmen, and see what we should have to do to obtain an efficient fleet and an efficient football team. Let us take 22 ships and 22 midshipmen, and assume that both ships and middies have been trained individually, but that they have never practiced maneuvering together or playing any game together. Divide the midshipmen into two teams of eleven each, and what success would they have in playing a game of football? Needless to say, there would be no team work, no combination plays, and in place of intelligent direction of the whole, there would be collisions and general confusion. They could probably be outmaneuvered and beaten by a good high school team.

If ships that had never been trained together as a fleet were to fight a battle, they would have a similar experience.

Neither the men nor the ships can do much:

1. Until they have mastered the theory and all the practical fine points of the game.

2. Until they have practiced working together until they can act as a single body—as a real team—in applying all the fine points.

But there is still another element of success, the most important of all, and that is the man whose brain directs the whole action. The football team must have an efficient captain and the fleet must have an efficient commander-in-chief. These are the men who train their respective teams to act as single bodies. They must not only have complete knowledge of the strategy and tactics of the game, but they must train their individual units to understand and apply them. They must develop new plays and devise the signals that indicate them; and they must have rapidity of decision, inflexible determination of character and plenty of nerve to carry out their plans of operation.

All of these really military qualities are wholly essential to success. For example, a man may, in the solitude of his study, acquire at leisure a complete mastery of the theory and principles of football, or of the strategical and tactical principles governing naval warfare. This is knowledge, but, indispensable as it undoubtedly is as a guide, and valuable as it may be in preparing the mind leisurely to reach a correct understanding of the significance of any situation that may arise, it is not an adequate training in the personal qualities that make for success in battle. These qualities are moral and mental ones. They comprise the ability to recognize, not leisurely, but promptly, the military significance of each strategical and tactical situation; ability to withstand surprise without impairment or suspension of judgment; rapidity of decision and promptness of action; and inflexible determination in carrying out the plan of operations.

These indispensable qualities of mind and military character can be acquired in no other way than by constant and intense competitive practice—constant and intense training of the mind and the will through handling the various types of situations in competition with alert minds that are handling the forces on the other side. We all recognize the importance of complete theoretical knowledge of the principles of any subject, and the importance of a complete

mastery of all the practical details involved ; but it may be doubted whether we all fully realize the no less imperative necessity of actually training our minds to apply the principles of naval warfare with that confidence, rapidity, and determination without which success is not possible in conflict with a well-trained enemy.

This subject of mental training through constant mental practice is of such importance that, even at the risk of tediousness, I will attempt still another illustration, also based upon the game of football.

Suppose a thoughtful and studious midshipman should come forward with a team of eleven men and base a claim to the honor of defending the Academy against West Point upon the following grounds: " My team is composed of the eleven best athletes in the Academy. I have trained them physically until they are each of them stronger and faster and have more endurance than any other men on any other team in the country. They can kick a ball straighter and farther than any others, and they can tackle harder. We have not paid any attention to any of the books or articles written by the masters of the game, nor have we received any instructions from these experts. We have practiced a bit with the ball on the field, but we have never played a real or a make-believe game against another team ; but as we are individually stronger men, swifter men, longer kickers and harder tacklers than any others in the country, we believe we can win."

It needs no argument to show that such a team could not win if pitted against another team all of whose members had been thoroughly drilled in team work under competent coaches, and thoroughly trained in many actual games against other strong teams. The eleven individually trained men could not win because a well-trained team, even though composed of weaker men, would have the enormous advantage of the ability to act as a whole, without confusion and with confidence and precision, under the leadership of a captain whose mind had been trained, in actual conflict with other minds, to accuracy of judgment, readiness of resource, and promptness in action.

Applying the above illustration to our naval service will, I believe, show not only a marked resemblance in conditions between the navy and the untrained team of eleven strong men, but will indicate very clearly the nature of the means necessary to render the navy efficient.

Analyzing the principal elements of success in football and in naval warfare, we find the following striking similarity.

There are three primary elements that are essential to success in football, namely: efficient material, adequate knowledge of the game, and adequate mental training in applying this knowledge.

1. Efficient material requires individual team members who are physically well developed and well trained, strong, swift, hardy men who can buck the line hard, kick hard, and take punishment.

2. Adequate knowledge of football—a mastery of the theory of the strategy, tactics and practical details of the game.

3. Adequate mental training—a leader and men whose minds have been trained by constant team practice to apply their knowledge and strength with the utmost rapidity and mutual confidence, and to take instant advantage of any situation that arises.

There are also three primary elements that are essential to the success in war of a nation's fleet, namely, the same elements—efficient material, adequate knowledge, and adequate mental training:

1. Efficient material requires fleet units individually well trained, ably commanded, powerful, swift, and able to give and take hard knocks.

2. Adequate knowledge—leaders and commanders who have a thorough knowledge of the art of war.

3. Adequate mental training—a leader and commanders whose minds have been trained by constant team practice to apply their knowledge with the utmost rapidity and mutual confidence, and to take instant advantage of any situation that arises.

As previously explained, you now can and do develop to the highest degree all three elements of success in football by your present methods of training. You have the husky men, you know the game, and you can develop your ability to play the game by practicing it as much as you wish under exactly the same conditions as those that will pertain in your final games.

Contrasting these facilities for developing football with our facilities for developing naval efficiency in war, we find the following unfavorable comparison. We have the ships, strong and well trained individually. But very few of our officers have received any instruction in the art of war, and an insignificant minority has received adequate instruction. Very few officers have received any competitive mental training in applying the principles of naval warfare, and almost none have received adequate training.

Our navy, therefore, corresponds at present very nearly to the eleven candidates for football honors who are strong, who are swift, who can kick, but who have not studied the strategy and tactics of the game, and who have never played it, or even seen it played.

The question is, what are we going to do about it? We are rapidly perfecting our material. We are now building ships that we believe are at least equal in power to any afloat. Our discipline and ship training is good, and we feel sure that we are second to none in hits per gun per minute at the longest practicable ranges; but we, the officers of the service, know little about war, and we are not training our minds to use efficiently even the little we do know.

Manifestly, our requirements are to educate our officers in the art of naval fighting, and to train their minds to apply this knowledge with the maximum efficiency.

How are we going to do it? Obviously, we cannot acquire this knowledge and this training by actually fighting our fleet against another. We cannot acquire much of it by service in the fleet. We must perfect an organization that will provide our officers with the necessary education in war, and devise games that will train their minds in applying this knowledge.

For more than 25 years we have had, in the Naval War College, the plant for providing this knowledge and training; but, unfortunately, the importance of its function has been so little understood that the plant has been throughout many years practically idle, through lack of the raw material—student officers. Admiral Luce, aided from time to time by a few other farseeing officers, after years of agitation, succeeded in having the college established, but upon several occasions they were forced to exert their maximum influence to prevent its abolition. At times it was doubtful whether they could retain even the building. Sometimes there were two members on the staff, sometimes half a dozen. Short summer conferences were held which served, as Admiral Luce states, to acquaint officers with the terminology of the art of war and show them how much they had to learn; but not until last year, when the long course was established, were any regular students sent to the college. It was the only institution of learning in the world that had a building and a faculty, but no students.

Of course there was a reason for this action on the part of the department. The various secretaries have usually acted in such

matters upon the advice of naval officers. This advice was, of course, based upon honest conviction. It is important, therefore, to examine the nature of this conviction, for there can be no doubt that it still exists, though probably in less degree, as witness the fact that last year there were but four long course students in the college, and this year there are but six, and only seven officers on the staff at the present time, including the president and secretary and one member attending the Army War College.

This state of affairs is the result of the nearly universal conviction in the service that the college necessarily devotes its attention to "High-brow," "Theoretical" studies, and that these are of little more than academic interest or importance in comparison with practical experience and the sea habit. Stated in its usual form, this singular conviction is that this "theoretical" knowledge does not help you much in acquiring proficiency in practical work; that the best possible preparation for the duties of any grade is practical proficiency in the grade immediately below it; and the conclusion of the so-called "practical man" is that War College work, as he understands it, is mainly in the line of what might be called "naval culture"; that while it may be interesting to the man who has a taste for that sort of thing, and a ready pen to expose his theoretical reflections, it cannot be of much use to the real salty naval officer.

Well, if I cannot succeed in dispelling this illusion, I shall have wasted my time and yours. Let us, therefore, examine the conviction of the "practical man," and see if we cannot discover the basis of his point of view. I know what this point of view is, for I have heard it explained by many officers who honestly believed they were becoming qualified for high command; but I have also in many cases seen it gradually abandoned by officers as soon as they became acquainted at the college with the very *raison d'être* of that institution, which is the inculcation of the knowledge and the application of the mental training that is wholly essential to enable officers to perform their duties efficiently, not in time of peace, but in time of war—to handle with the maximum possible effectiveness a great naval force in deadly competition with a great enemy naval force.

The "practical man's" conclusion is correct so far as his lights go. His conclusion is a logical result of what is undoubtedly his conviction; namely, that he is fulfilling his whole duty when he

does his work efficiently in the various grades. It is true that this is an excellent preparation for the purely peace duties that he will have to perform in the next higher grade; and it is equally true that the knowledge and mental training to be acquired at the War College will not help him much in performing these duties; but where the "practical man" goes astray is in his almost inevitable assumption that the efficient performance of the duties of the various grades in time of peace is throughout all grades an adequate preparation for the duties that must be performed in time of war.

The reason that this assumption is usually applied to all grades is doubtless because it is true as regards the great majority of the grades—that is, the junior grades. The peace duties of junior officers—gun-division officers, navigators, first lieutenants, engineer officers, gunnery officers, and executives are most excellent training for the principal duties they will have to perform in time of war.

But, and this is the gist of the whole matter, this is true only to a very limited extent as regards officers who exercise command of ships, divisions, squadrons, fleets, or any other separate detachments.

It is distinctly untrue that the duties that these higher officers perform in time of peace are anything like an adequate training for the duties they will have to perform in time of war.

Moreover—and this is to be especially noted—it is, and always will be, physically impossible to obtain this training by service in the fleet, no matter how extended it may be. This impracticability is due to the simple fact that it is not possible actually to use great fleets to play a sufficient number of war games to provide its officers with adequate mental training in strategy and tactics.

Let me state a concrete case. Assume that we have, mobilized at Hampton Roads, a fleet consisting of:

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| 35 battleships. | 100 colliers. |
| 10 armored cruisers. | 4 advance base ships. |
| 30 scouting vessels. | 6 troop ships. |
| 12 gunboats. | 30 torpedo boats. |
| 50 destroyers. | 40 submarines. |
| 20 auxiliaries. | |

A European nation has declared war for the purpose of acquiring a naval base in the Caribbean, and has just despatched an even more powerful fleet.

How, in the exercise of command in time of peace, could the commander-in-chief and his subordinate admirals and detachment commanders have acquired the knowledge of war and the mental training necessary to enable them to draw up and carry out efficient strategical plans of operation, to organize the force in the manner that would most efficiently meet the requirements of the situation, and to handle it with success in actual battle?

The process required to accomplish this is wholly a mental one. Previous experience in ordinary fleet service will be of little use. A knowledge of the principles of warfare derived from a study of the great masters will be indispensable; but this knowledge can be successfully applied only by minds that have been trained by much practice in the solution of just such problems, and in the formulation of orders that will insure the commander's intentions being carried out in complete coordination with his plans.

Manifestly, the fleet cannot be continuously used as a means of acquiring this essential mental training, except to a very limited extent in the practice of minor problems; but even this practice will not supply the knowledge of the principles that are to be derived only from the history of warfare; and without adequate acquaintance with these principles, even the most extensive practice of minor problems cannot do much more than train the mind in the application of such knowledge as is already possessed.

Again, we may ask, what are we going to do about it? We would go down under a storm of ridicule if we attempted to beat West Point with the eleven superb athletes who did not understand, and who never had practiced, the game.

What sort of a storm do you think it would produce if we should attempt to hold the Caribbean or defend the Panama Canal with a fleet of superb dreadnoughts commanded by men who did not understand the game and who had never seen it played, even in miniature? The result would doubtless be a disaster so complete that the country would not recover its prestige in fifty years, though it might rebuild its fleet.

I do not wish to be understood as implying that all of our officers are ignorant of the art of war and untrained in the application of its principles; but it must be perfectly apparent to anyone acquainted with the facts that, barring a wholly insignificant proportion, the commissioned personnel of the navy is not now being systematically and adequately educated for the performance of its higher duties in time of war.

It is evident that this essential-education must be provided for. There remains only the question as to the most efficient method; and since it is materially impossible to carry out with the mobilized fleet exercises that are sufficiently extensive and sufficiently numerous to provide this training, it is equally evident that we must devise some form of game which will require, in order to win, the same knowledge of the art of war, and the same exercise of the mind in applying this knowledge, as would be required in actual war.

It must be a game that can be played hundreds of times, or often enough to enable the student to correct at least all fundamental mistakes—which is a requirement that is essential to any adequate mental training.

A commander-in-chief and his subordinate commanders who have been trained in such a manner will be prepared to meet the probable strategy of the enemy. This training will have developed a doctrine of war so fixed as regards its fundamental rules and principles that when an order is given it will be understood and obeyed in the light of this common doctrine.

I know from experience that the omnipresent "practical man" often regards such games as too theoretical to be of benefit to him. Let us, therefore, examine this point in sufficient detail to make clear the practical nature of the war training in question.

If this subject interests you sufficiently, I am sure that those members of the War College staff who conduct the games will be glad to come here and explain them and how they are played. I will not attempt to do so, because I assume that you are sufficiently acquainted with them to understand the references made in the following illustrations and comparisons.

The war games—the tactical games and chart maneuvers—bear the same relation to efficiency in handling a fleet as dotter and sub-caliber practices bear to efficiency in handling a ship's battery, or as practice on the field bears to efficiency in handling a football team.

A man practices with the dotter until his mind and muscles are so trained that continuous aim becomes nearly a sub-conscious process.

Men practice on the football field until their minds are trained instantly to meet and act upon any situation that may be presented. Their method of training is perfect.

Similarly, officers practice the war games until their minds are so trained that decisions flow naturally and almost automatically from the war doctrine developed by the training itself.

We use the dotter because we cannot fire the guns often enough to get the necessary amount of training; and, similarly, we use the war games because we cannot use the fleet often enough to get the necessary amount of training.

You have all seen how dotter practice develops ignorant and untrained men into expert gun-crews.

You have all seen how sub-caliber practice develops the efficiency of the fire-control party and of the battery as a whole.

You fully realize, I am sure, that these practices, though theoretical in a sense, are in the highest degree practical training. You have doubtless noticed that in all cases the training is a process of making mistakes and correcting them.

You have all seen husky untrained midshipmen successfully trained by practice until they became alert, quick minded and expert football players. You fully realize that without such mental practice, such a process of making and correcting mistakes, success would be impossible.

Similarly, if you should attend the Naval War College, you would see exactly the same kind of a process being applied to officers. You would see young officers of excellent attainment, as regards all the duties of their grade, commence to play the games in the same mistaken and blundering manner, and, by the process of correcting their mistakes, become relatively expert, attain confidence in the application of their knowledge, ability to give and understand military orders, and promptly to act upon them in coordination with the commander-in-chief. Confidentially, I may say that the older officers who attend the college have exactly the same experience.

I think you will recognize, therefore, that these so-called theoretical war games are no less practical as a training of officers in handling a fleet than are the dotter and sub-caliber practices in training men and officers in handling a ship's battery.

We may, in fact, regard these games as, in reality, nothing more nor less than dotter and sub-caliber appliances that have been devised for training officers in the application of the art of war. In each case we use an inexpensive miniature appliance that

supplies the same kind of mental training as the real thing ; and we do this simply because we cannot use the real thing for this purpose.

As a matter of fact, the war games possess the greater practical value, because they serve to develop new applications of the principles of warfare as applied to modern naval conditions. If you should have the good fortune to listen to a lecture by Commander Pratt, you will doubtless learn that certain new features of tactics, that he will explain, were not derived from individual inspiration or reasoning, but are the direct result of the conflict of many minds striving in tactical games to outmaneuver each other. He may also explain how the tactical game demonstrates the necessity for new or modified types of vessels, or new or modified uses for those already built.

These games are played under rules that are as nearly like actual conditions at sea as our present experience will permit us to formulate. The practicability of rules and certain maneuvers are tested in the fleet and modified accordingly.

Let me here invite your attention to another significant fact concerning these war games, and that is that an admiral who handles a great fleet in war will be obliged to do so in very much the same manner as that in which a paper fleet is handled in the games, and this for the simple reason that it is not physically possible to handle it in any other way.

In the comparison made between an untrained football team and an untrained fleet, I have, for simplicity, purposely assumed a fleet of eleven vessels. This is hardly more than a squadron, to be handled, like the football team, under the immediate eye of its commander. But the man who directs extensive naval operations has a much more complicated task to perform. He may have under his command no less than 140 fighting ships of various classes, not including torpedo boats and submarines.

As such a fleet, even if in massed formation, would cover an area of over 100 square miles, and probably 1000 before the action was over, it is evident that but a small part could be within view from any one position ; and that therefore the commander-in-chief would have to be guided by a study of the positions of the various subdivisions as plotted on a chart—which would be exactly the same process that he would employ in war games, with respect to detachments that were beyond the range of vision, or so far away that their maneuvers could be determined only by instrumental

measurements. The same process would of course be required in controlling the strategical maneuvers that preceded the tactical engagement.

Thus it will be seen that, in order to play these war games with success, the leaders require the same kind of knowledge and the same kind of mental training as they would require to conduct successful naval operations. They are, therefore, not only highly valuable training, but training of the most practical possible kind.

I hope I have made it clear that these war games are not only eminently practical as a means of acquiring essential mental training, but also that this training cannot be acquired in any other manner whatever; that the really practical men are those who study war and train their minds to conduct it with success; that an officer's whole career should be a preparation for the duties that may devolve upon him in a time of great national danger.

My contention is that we should devote at least as much thought and energy to preparing ourselves to win battles on the sea as we now do to preparing our football teams to win games on the gridiron.

And now a word as to the duty of individual officers in this respect.

It need hardly be more than stated that any system of naval organization is fundamentally defective which does not provide for the systematic and adequate education and training of its officers in the art and practice of war; but in the absence, or inadequate operation, of such an organization, much can be accomplished by the individual, and much more by cooperative work, where practicable.

I think that any man who once grasps the real significance of his position as a naval officer; who once realizes that he has signed a contract to do his utmost in defense of the country in time of danger, will begin to prepare himself for the duties that will devolve upon him. And, when he once realizes that he cannot efficiently perform these duties unless he understands war, I think he will employ some of his leisure time in acquiring that knowledge. If he can do nothing else, he will have accomplished much. His mind will at least be stored with the knowledge that will make it ready to be trained in its correct application.

But if, in addition, he can, in association with those with whom he is serving, get some of the war training that I have

attempted to describe; if he can in this manner manage to play a few war games, even in a modified form, he will have accomplished a great deal in the way of preparing himself—his mind—for war.

Moreover, he will find that these studies and exercises have given him a new point of view as regards the naval profession. When he once clearly sees that his real mission is to do his part at all times in preparing the navy for war, and in helping others to do the same, I am sure that even his most irksome routine duties will take on a new significance and be lightened accordingly.

I need hardly say that, in my opinion, all officers should be given the opportunity, either at the War College, or in War College Extensions, to study the art and practice of war.

In describing the attitude of the "practical man," I have not meant to imply that neither the fleet nor the service in general take any interest in the work and aims of the college, for such is not the case. By direction of the commander-in-chief, the officers of the Atlantic fleet have done a certain amount of work in the way of solving strategical and tactical problems similar to those used at the college, and on several occasions such problems have been worked out at sea by subdivisions of the fleet; and in estimating the situations and drawing up the plans and orders for these maneuvers some of the fleet officers have consulted members of the college staff.

Last month, while on a visit to Washington, I stated, in conversation with the assistant secretary, that, in my opinion, the most imperative need of the service at the present time is greatly increased opportunities for our officers to acquire a knowledge of the art of war, and he expressed his entire agreement.

There are also so many other evidences of interest in and appreciation of the kind of work the college is now doing, not the least of which is that shown by the officers of the Naval Academy, that in my opinion it will not be very long before it will be considered absurd, or worse, to assign to any important position, ashore or afloat, any officer who has not acquired an adequate knowledge of war, either at the college or elsewhere.

When this becomes the general opinion, it will be considered both an honor and a valued privilege for an officer to be allowed to take the course at the college. In some foreign Naval War Colleges only those officers are admitted as students who win the

privilege in severe competitive examinations; and only graduates of the colleges can be assigned to duty on the staff of a commander-in-chief afloat.

These are very desirable conditions which I feel sure we are fast approaching; and if this is true it behooves all officers who have a just regard for their future careers to prepare themselves successfully to meet these conditions.

With this end in view, it is evident that the earlier officers begin the studies in question, and the more they are able to accomplish in the way of acquisition and mental training, the better it will be for them and for the service.

As even indifferent students know, a very little time devoted to a subject each day will result in really astonishing accumulation. Where a number of officers are serving in the same locality, as here at the Academy, in Washington, at Naval Stations, in the wardrooms of ships, etc., cooperation is facilitated, and results can be accomplished which cannot even be attempted by individuals.

If, therefore, I have been able to present this case, of the long neglected training of our officers for war, with sufficient clearness to convince you of its imperative necessity, perhaps some of you may be inspired to take the first steps toward the establishment of what may be called the first Naval War College Extension.

If so, I am sure that both the college and the department would gladly meet you half way, by affording the necessary facilities and supplying the necessary preliminary instructions. Certain lectures by members of the college staff, supplemented by the experience of those of you who have attended the college, would serve to initiate the playing of the strategical and tactical games, and would, I am sure, demonstrate their great practical value much more convincingly than I have been able to do.

If, in addition to this, you should find the time to take up a selected but limited course of military reading, I can assure you that in a year's time you would have every reason to congratulate yourselves.

The following list of books is suggested as preliminary to a more extended course of reading when opportunity offers. Many similar lists could be suggested, but it is believed that these books will prove not only as interesting as any, but will serve to give a general idea of the nature and extent of the knowledge that is essential to success in war. It is assumed that officers are familiar

with the earlier works of Mahan, and with those of Daveluy and Darrieus that have been translated and published in the Naval Institute:

The Brain of the Navy.....Wilkinson.
 Naval Strategy.....Mahan.
 Maritime Strategy.....Corbett.
 Letters on Strategy.....Hohenlohe-Ingelfingen.
 Modern War.....Derrécagaix.
 On War.....Clausewitz.

A list of the principal works used in the various branches of study at the Naval War College will be sent upon application.

And now, in conclusion, let me point out that the training I have suggested will not impose upon you a task in the ordinary acceptance of the term. It is, on the contrary, a game that is proposed for your entertainment and instruction. It is as thoroughly competitive as football or chess or any other game that involves the conflict of mind against mind; but in addition to the natural interest inherent in all competitive games, this particular one is so intimately associated with that which, in playing it, you will soon recognize as one of the most essential elements of maritime power, that it cannot fail to interest you intensely; and I therefore can, with every confidence, promise you that even the limited course of reading and war games herein indicated will not only prove a revelation; will not only give you a new point of view; will not only define your real mission in life; will not only lead you to regard the service in a new and higher light, but will actually transform the daily grind of routine duties in peace into a willing and cheerful service in the cause of preparation for war.

If I have succeeded in convincing you of the importance of an officer's keeping his mission always clearly in mind; if you believe that by so doing his ordinary duties in peace will assume such a new aspect that his efficiency in all grades will thereby be increased; if you believe that this attitude toward the service will naturally incline a young officer's mind toward the study of the ultimate object of his profession—that is, success when war overtakes us—then it follows that you should pass this instruction along; it follows that every midshipman should, before leaving the Academy, have these ideas thoroughly implanted in his mind.

I do not advocate the instruction and training of midshipmen in

the art of war, but I do advocate very strongly their being given clearly to understand what they are here for, what they are in the navy for, what the meaning of their contract is, otherwise they are more than likely to waste the priceless years during which only habits of study can be formed and knowledge easily acquired.

In this connection, let me briefly relate as an illustration my personal experience. When I left the Academy in 1880, I had no real conception of my proper relation to the service. I cannot recall what my attitude was. I doubt if I had ever formulated any. I am sure, however, that for a long time I was not only comparatively useless but perhaps actually detrimental to efficiency.

There was little doing in the navy in those days of old wooden ships and cast iron smooth-bores. Officers used to return from shore in the 9 o'clock boat and go ashore again in the 10.30. An afternoon drill period would at that time have brought on a mutiny of serious proportions. There was relatively a great deal of leisure. Under these conditions I put in perhaps 12 or 15 years in a variety of reading that had no direct relation to the profession, including the philosophies, political economy, etc. This was not useless, but certainly not in the line of an officer's mission.

If some officer of experience had explained this matter to my class, if he had accentuated the importance of military studies (and he could have done it in an hour), I am sure we all would not only have performed our duties more efficiently in all grades, but we should, through a gradual accumulation of knowledge, be much better equipped than we now are.

And now, a final word to correct a possibly erroneous inference that you may have drawn from what I have said concerning the importance of the training to be obtained at the War College.

I do not wish to convey the impression that it is my opinion, or that of anybody who has attended the college, that the long course of 16 months does or can ever provide either adequate knowledge or adequate training. It cannot possibly do so. The most it can do for the untrained man is to give him the uninterrupted opportunity to acquire the basic principles of the art of war and a certain amount of mental training in their application.

Its principal value is in showing such a man how much he did not know when he began, how much he yet has to learn, and what should be the direction and objective of his future studies.

Unfortunately, as applied to an old man, the future is short—the

end of the career is close aboard ; but how different it might have been if this old man had been pointed fair in his youth ; had been given clearly to understand that only through the gradual, thoughtful accumulation of information, throughout a long period of years, can a reasonable mastery of any subject be attained?

You gentlemen are all comparatively young. You now have the opportunity that can never return. It lies with you to determine, now if ever, whether, when you become old, you will have to regret the wasted years of your youth ; whether at that period of life you will find yourselves simply " practical men "—" beefeaters "—or really educated military naval officers.

It will depend largely upon self-instruction and self-discipline, keeping clearly in view the fact that, under modern naval conditions, an officer may be highly successful, and even brilliant, in all grades up to the responsible positions of high command, and then find his mind almost wholly unprepared to perform its vitally important functions in time of war.

The appeal to an officer's patriotism and loyalty is of course higher than an appeal to his personal interest, but when the circumstances are such that the pursuit of personal ambition tends in all respects in the direction of efficiency in preparing the navy for war, then it is to be commended and encouraged.

I have tried to make it clear that those of you who do not acquire a knowledge of the art of war and who do not train yourselves in its application, cannot reasonably hope to be selected in the near future for distinguished duties in the higher grades. Also that every officer who prepares himself for such duties is thereby increasing the efficiency of the navy as a fighting organization.

It is therefore perfectly proper and highly desirable that officers should, by study and by competing in war exercises, seek a distinction which, in this particular case of self-improvement in war studies, is a true measure of the very kind of efficiency that the navy most needs.

If I had my career ahead instead of behind me, I should endeavor to the extent of my ability to acquire as thorough a knowledge of the principles of the art of war as possible, and I would neglect no opportunity to train myself in their application by playing competitive war games.

Such training cannot be begun too soon after an officer has acquired a certain amount of experience in the service, and I should

consider it commendable for him to use all proper means to obtain orders to the War College.

He is indeed blind to the signs of the times who does not see that new standards of efficiency are rapidly forming in the service ; and those who, understanding this, still neglect the golden opportunity of youth, with its mental flexibility and freedom from responsibility, will have themselves to blame if, when they reach the higher grades, they are selected out or relegated to the class of hewers of wood and drawers of water.